

09/544,682

1. (ORIGINAL) A digital content file including a license control mechanism for controlling the licensed use of digital content, comprising:

a digital content, and

an embedded file access control mechanism embedded in the digital content file, including

a license functions mechanism embedded in the digital content file and including

a license monitor and control mechanism communicating with a dynamic license database and monitoring use of the digital content by a user to determine whether a use of the digital content by a user complies with the license defined in the dynamic license database, and

a license control utility providing communications between a user system and an external system to communicate license definition information between the user system and the external system, including

a graphical user interface associated with the license control utility to provide communication between a user and user accessible functions of the license functions mechanism, and

the dynamic license database wherein the dynamic license database is associated with the digital content file for storing information controlling operations of the file access control mechanism and license information controlling licensed use of the digital content.

2. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein the information contained in the dynamic license database and controlling licensed use of the digital content includes:

user accessible information defining a license available to a user and controlling use of the digital contents by the user.

09/544,682

3. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 2, wherein the information contained in the dynamic license database and controlling licensed use of the digital content further includes:

license purchase information defining the terms of purchase of at least one license available to a user, and

the license control utility and license monitor and control mechanism are responsive to user input through the graphical user interface for

accessing the purchase information in the dynamic license database,

accessing the user system to obtain system information identifying the user system in which the digital content is to be used,

communicating purchase information for a license selected from the at least one license defined therein to an external system,

receiving from the external system license information corresponding to the purchase information, and

writing the license information into the dynamic license database for use by the license monitor and control mechanism in controlling licensed use of the digital content by the user.

4. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 2, wherein:

the license information contained in the dynamic license database for controlling licensed use of the digital content further defines license conditions for use of the digital content in a user system,

09/544,682

the license control utility and license monitor and control mechanism are responsive to user input through the graphical user interface requesting activation of the license defined in the dynamic license database for

accessing the user system to obtain system information identifying the user system in which the digital content is to be used,

confirming that the system information and user request for activation of the license defined in the dynamic license database complies with the license defined in the dynamic license database,

writing the system information into the dynamic license database to be part of the license information contained in the dynamic license database for controlling licensed use of the digital content, and

activating the license defined in the dynamic license database.

5. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein:

the license monitor and control mechanism is responsive to an attempt by a user system to access the digital content for comparing information obtained from the user system regarding use of the digital content and allowed uses of the digital content as defined by the license information residing in the dynamic license database and determining whether a use of the digital content by a user complies with the license defined in the dynamic license database.

6. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein:

the information contained in the dynamic license database and controlling licensed use of the digital content can be accessed only through the license monitor and control mechanism embedded in the digital content file.

09/544,682

7. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein:

the digital content can be accessed only through license functions mechanism embedded in the digital content file.

8. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein the information contained in the dynamic license database and controlling licensed use of the digital content further includes:

system fingerprint information identifying a user system on which the digital contents are licensed for use, and

the license functions mechanism further comprises:

an adaptive fingerprint security mechanism responsive to an attempted access of the digital contents for obtaining current system fingerprint information from the user system and comparing the current system fingerprint information with the system fingerprint information in the dynamic license database, and

wherein the license monitor and control mechanism is responsive to a comparison of the current system fingerprint information with the system fingerprint information in the dynamic license database to allow the user system to access the digital content when the current system fingerprint information compares with the system fingerprint information in the dynamic license database to within a predetermined range of tolerance.

9. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 8, wherein:

the license monitor and control mechanism is responsive to a comparison of the current system fingerprint information with the system fingerprint information in the dynamic license database when the current system fingerprint information compares with the system fingerprint information in the dynamic license database to within a predetermined range of tolerance for

09/544,682

writing the current system fingerprint information into the dynamic license database in replacement of the system fingerprint information previously stored in the dynamic license database.

10. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein the digital content of the digital content file comprises:

executable code.

11. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 1, wherein the digital content of the digital content file comprises:

digital data.

12. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 11, wherein the digital content of the digital content file comprises:

media data.

13. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 12, wherein the digital content of the digital content file comprises:

music data.

14. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 12, wherein the digital content of the digital content file comprises:

video data.

09/544,682

15. (ORIGINAL) The digital content file including a license control mechanism for controlling the licensed use of digital content of claim 12, wherein the digital content of the digital content file comprises:

media data to be presented to a user through a media player,

the system fingerprint information includes authorized media players, and

herein the license monitor and control mechanism is responsive to a comparison of current system fingerprint information identifying a media player accessible by the user system with the system fingerprint information in the dynamic license database identifying authorized media players to allow the user system to access the media data when the current system fingerprint information identifies a media player registered as an authorized media player in the system fingerprint information in the dynamic license database.

16. (ORIGINAL) A method for constructing a digital content file to be installed in a user system wherein the digital content file includes an embedded file access control mechanism for controlling the licensed use of digital content and wherein the digital content of the digital content file includes executable code, comprising the steps of:

generating a reconstructed executable code by,

extracting from the executable code information identified as critical and necessary to the execution of the executable code, and

inserting links to a wrapper dynamic linked library,

the wrapper dynamic linked library including

a control dynamic linked library containing control functions for the display and behavior of options for license purchase and generation, and

a main dynamic linked library including,

a license functions mechanism, and

09/544,682

the extracted information identified as critical and necessary to execution of the executable code,

generating an encrypted reconstructed executable code by encrypting the executable code of the reconstructed executable code and the links inserted into the reconstructed executable code,

generating an encrypted wrapper dynamic linked library by encrypting the wrapper dynamic linked library, and

constructing a product installer by combining the encrypted reconstructed executable code, the encrypted wrapper dynamic linked library, a dynamic license database, and a license decrypt/extraction mechanism.

17. (ORIGINAL) The method of claim 16 for constructing a digital content file including an embedded file access control mechanism for controlling the licensed use of digital content wherein the digital content of the digital content file includes executable code, wherein the embedded file access control mechanism includes:

the dynamic license database for storing information controlling operations of the file access control mechanism and license information controlling licensed use of the digital content, and

the license functions mechanism, wherein the license functions mechanism includes

a license monitor and control mechanism communicating with the dynamic license database and monitoring use of the digital content by a user to determine whether a use of the digital content by a user complies with the license defined in the dynamic license database, and

a license control utility providing communications between a user system and an external system to communicate license definition information between the user system and the external system, including

09/544,682

a graphical user interface associated with the license control utility to provide communication between a user and user accessible functions of the license functions mechanism.

18. (ORIGINAL) A method for installing a digital content file in a user system wherein the digital content file resides in a product installer and includes an embedded file access control mechanism for controlling the licensed use of digital content, a dynamic license database for storing information controlling operations of the file access control mechanism and use of the digital content and wherein the digital content of the digital content file includes executable code, comprising the steps of:

decrypting and extracting the contents of an encrypted wrapper dynamic linked library wherein the dynamic linked library includes

a control dynamic linked library containing control functions for the display and behavior of options for license purchase and generation, and

a main dynamic linked library including,

a license functions mechanism, and

extracted information identified as critical and necessary to execution of the executable code,

storing the license functions mechanism in the user system,

determining whether the dynamic license database contains information defining a license controlling use of the digital content in the user system, and

when the dynamic license database does not contain information defining a license controlling use of the digital content, executing operations defined by information in the dynamic license database and controlling operations of the file access control mechanism for

09/544,682

obtaining license information defining a license controlling use of the digital content in the user system, and

when the dynamic license database contains information defining a license controlling use of the digital content, executing operations defined by information in the dynamic license database and controlling operations of the file access control mechanism for obtaining license information defining a license controlling use of the digital content in the user system

decrypting and extracting the contents of an encrypted reconstructed executable code wherein the encrypted reconstructed executable code includes

executable code of the digital content containing links to the wrapper dynamic linked library, and

storing the executable code of the digital content in the user system.

19. (ORIGINAL) The method of claim 20 for installing a digital content file in a user system, wherein:

the license functions mechanism is stored in the user system using a randomly generated file name.

20. (ORIGINAL) The method of claim 19 for installing a digital content file in a user system, wherein:

the dynamic license database is stored in the user system using a randomly generated file name.

21. (ORIGINAL) A method for accessing the digital content of a digital content file in a user system wherein the digital content includes executable code and the digital content file includes an embedded file access control mechanism, comprising the steps of:

in the file access control mechanism,

09/544,682

intercepting an attempt to access the digital content and validating licensed access of the digital content by

determining whether a dynamic license database associated with the file access control mechanism contains license information defining a license controlling user of the digital contents,

determining whether the user system complies with a license defined by license information contained in the dynamic license database, and

when the user system complies with a license defined by license information contained in the dynamic license database,

allowing access to the executable code and to information extracted from the executable code and stored in a main dynamic linked library associated with the file access control mechanism.

22. (ORIGINAL) A method for constructing a digital content file to be installed in a user system wherein the digital content file includes an embedded file access control mechanism for controlling the licensed use of digital content and wherein the digital content of the digital content file includes data, comprising the steps of:

generating an encrypted contents by encrypting the digital contents,

generating an encrypted products information containing information used in obtaining license information controlling use of the digital contents.

generating a digital content file containing the encrypted contents and the encrypted products information and generating an encrypted digital content file by encrypting the digital content file, and

generating an installable executable containing the encrypted digital content file and an embedded file access control mechanism including a decrypting mechanism.

09/544,682

23. (ORIGINAL) The method of claim 22 for constructing a digital content file including an embedded file access control mechanism for controlling the licensed use of digital content wherein the digital content of the digital content file includes executable code, wherein the embedded file access control mechanism includes:

a license functions mechanism, wherein the license functions mechanism includes

a license monitor and control mechanism communicating with a dynamic license database and monitoring use of the digital content by a user to determine whether a use of the digital content by a user complies with the license defined in the dynamic license database, and

a license control utility providing communications between a user system and an external system to communicate license definition information between the user system and the external system, including

a graphical user interface associated with the license control utility to provide communication between a user and user accessible functions of the license functions mechanism,

the decryption mechanism; and

a dynamic license database that is associated with the file access control mechanism for storing information controlling operations of the file access control mechanism and license information controlling licensed use of the digital content.

24. (AMENDED) A method for installing a digital content file in a user system wherein the digital content file wherein the digital content includes data and is contained in an installable executable containing an encrypted digital content file and an embedded file access control mechanism including a decrypting mechanism, comprising the steps of:

downloading an instalsable executable containing the digital content file, wherein the installable executable includes

09/544,682

encrypted digital contents.

encrypted products information containing information used in obtaining license
information controlling use of the digital contents.

an encrypted digital content file containing the encrypted contents and the
encrypted products information, and

an embedded file access control mechanism including a decrypting mechanism.
and

executing the installable executable to

store the file access control mechanism and the encrypted digital content file in
the user system.

25. (ORIGINAL) The method of claim 24 for installing a digital content file in a user system wherein the digital content includes data and is contained in an installable executable containing an encrypted digital content file and an embedded file access control mechanism including a decrypting mechanism, further comprising the steps of:

invoking the file access control mechanism to determine whether the dynamic license database contains information defining a license controlling use of the digital content in the user system, and

when the dynamic license database does not contain information defining a license controlling use of the digital content, executing operations defined by information in the dynamic license database and controlling operations of the file access control mechanism for obtaining license information defining a license controlling use of the digital content in the user system.

26. (ORIGINAL) A method for accessing the digital content of a digital content file in a user system wherein the digital content file wherein the digital content includes data contained

09/544,682

in an encrypted digital content file and the digital content file includes an embedded file access control mechanism including a decrypting mechanism, comprising the steps of:

in the file access control mechanism,

intercepting an attempt to access the digital content and validating licensed access of the digital content by

determining whether a dynamic license database associated with the file access control mechanism contains license information defining a license controlling user of the digital contents,

when the dynamic license database contains information defining a license controlling use of the digital content,

decrypting encrypted product information contained in the encrypted digital content file and determining whether the user system complies with a license defined by license information contained in the dynamic license database, and

when the user system complies with a license defined by license information contained in the dynamic license database,

decrypting the digital contents from the encrypted digital content file and providing the digital contents to the user system.

27. (ORIGINAL) The method for accessing the digital content of a digital content file in a user system of claim 26, wherein:

an application in the user system is designated to access at least one designated type of digital content file, and

the file access control mechanism includes a monitor to intercept attempts to open digital content files of the at least one designated type by the application and to invoke the file

09/544,682

access control mechanism to execute the steps for validating licensed access of the digital content.

28. (ORIGINAL) A method for distributing a digital content file including a license control mechanism for controlling the licensed use of digital content of the digital content file, comprising the steps of:

preparing a licensable digital content file, containing

a digital content,

an embedded file access control mechanism, including

a license functions mechanism including

a license monitor and control mechanism communicating with a dynamic license database for monitoring use of the digital content by a user to determine whether a use of the digital content by a user complies with the license defined in the dynamic license database,

an adaptive fingerprint security mechanism for accessing a user system and determining fingerprint information identifying the user system, and

a license control utility providing communications between a user system and an external system to communicate license definition information between the user system and the external system, including

a graphical user interface associated with the license control utility to provide communication between a user and user accessible functions of the license functions mechanism, and

the dynamic license database wherein the dynamic license database is associated with the digital content file for storing information controlling operations of the file access control mechanism and license information controlling licensed use of the digital content, wherein

09/544,682

the dynamic license database initially associated with the licensable digital content file contains initial license information defining the requirements for at least one license that may be obtained by a user of a user system,

providing the licensable digital content file to a user system through a distribution mechanism, and

in the user system,

accessing the initial license information in the dynamic license database to determine the requirements for the at least one license that may be obtained by a user of the user system, including

accessing the user system to obtain system fingerprint information identifying the user system in which the digital content is to be used,

executing the requirements defined in the initial license information to obtain license information defining a license allowing use of the digital contents, and

writing the license information and system fingerprint information into the dynamic license database for use by the license monitor and control mechanism in controlling licensed use of the digital content by the user.

29. (ORIGINAL) The method of claim 28 for distributing a digital content file including a license control mechanism for controlling the licensed use of digital content of the digital content file, further comprising the steps of:

configuring a license management database to be associated with the licensable digital content file and containing license information for controlling use of the digital content file in compliance with a license defined by the license information, and

storing the license management database in a product configuration and order database, and

09/544,682

wherein the step of executing the requirements defined in the initial license information to obtain license information defining a license allowing use of the digital contents further includes the steps of:

in the user system, and by operation of the file access control mechanism

generating a request for a license containing user system information, including system fingerprint information and providing the request to the product configuration and order database,

in the product configuration and order database,

reading the license management database corresponding to the digital content file and request and generating license information defining a license for use of the digital content in the user system,

providing the license information defining a license for use of the digital content in the user system to the user system, and

in the user system, and by operation of the file access control mechanism,

writing the license information into the dynamic license database to define a license for use of the digital content in the user system.

30. (ORIGINAL) The method of claim 29 for distributing a digital content file including a license control mechanism for controlling the licensed use of digital content of the digital content file, further comprising the steps of:

in the user system,

intercepting an attempt to access the digital content and validating licensed access of the digital content by

determining whether the dynamic license database contains license information defining a license controlling user of the digital contents, and

09/544,682

when the dynamic license database contains information defining a license controlling use of the digital content,

accessing the user system to obtain current system fingerprint information identifying the user system,

determining whether the user system complies with a license defined by license information contained in the dynamic license database, including determining whether the current system fingerprint information corresponds with the system fingerprint information stored in the dynamic license database within a predetermined range of tolerance, and

when the user system complies with a license defined by license information contained in the dynamic license database,

allowing the user system access to the digital contents.

31. (ORIGINAL) A method for providing a license for use of digital content in a digital content file residing in a user system wherein the digital content file includes an embedded file access control mechanism for controlling the licensed use of digital content of the digital content file, the file access control mechanism including a license functions mechanism including a license monitor and control mechanism, an adaptive fingerprint security mechanism, and a license control utility, including a graphical user interface, and a dynamic license database associated with the digital content file for storing information controlling operations of the file access control mechanism and license information controlling licensed use of the digital content, comprising the steps of:

in the user system, and by operation of the file access control mechanism

generating a purchase request for a license containing user system information wherein the purchase request includes system fingerprint information and financial information relating to the purchase of a license, and

09/544,682

providing the request an order processing system,
in the order processing system,
generating an order identification and authorization for a license, and
providing the order identification and authorization and the purchase request to
a product configuration and order database containing at least one license management
database associated with the digital content file and containing license information for
controlling use of the digital content file in compliance with a license defined by the license
information, and
in the product configuration and order database,
reading the license management database corresponding to the digital content
file and generating license information defining a license for use of the digital content in the user
system,
providing the license information defining a license for use of the digital content
in the user system to the user system, and
in the user system, and by operation of the file access control mechanism,
writing the license information into the dynamic license database to define a
license for use of the digital content in the user system.

32. (ORIGINAL) The method of claim 31 for providing a license for use of digital content
in a digital content file residing in a user system wherein the digital content file includes an
embedded file access control mechanism for controlling the licensed use of digital content of
the digital content file, further comprising the step of:

in the product configuration and order database,
generating a license record of the order identifier and license information
provided to the user system.